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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,596

02/19/2004

Yu Hsu Lin

1523

25859

7590

07/27/2005

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EXAMINER

LEE, BENNY T

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,596

Applicant(s)

LIN ET AL.

Examiner

Benny Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 2, 3; 6-9; 10-13; 16, 17; 20-22; 23-28 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14, 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-28 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election without traverse of Species I in the reply filed on 20 June 2005 is acknowledged.

Claims 2, 3; 6-13; 16, 17; 20-22; 23-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 20 June 2005.

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: Paragraph [0002], third line therein, "which screws up..." needs rephrasing. Paragraph [0004], fourth line from the bottom, "enormously" to --greatly--.

The disclosure is objected to because of the following informalities: Paragraph [0004], third line from bottom, "the other may need..." is vague in meaning and needs rephrasing; last line therein, note that reference to "differential pair b" is vague in meaning. Paragraphs [0027] & [0028], note that --apart-- should follow "are far enough". Appropriate correction is required.

The drawings are objected to because in Fig. 2, parameters --D-- & --H-- need to be provided as per the description at paragraph [0020]. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing

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figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claims 4, 5; 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, note that "said third signal trace is disposed in one of the plurality of layers that said second signal trace is disposed" and "said fourth signal trace is disposed in another one of the plurality of layers than said first signal trace is disposed" does not appear consistent with the corresponding "trace" and "level" as respectively defined in claim 1, from which this claim directly depends. Clarification is needed.

In claim 15, note that "the same first level with the second trace" & "the same second level with the first trace" does not appear consistent with the "trace" and "level" as respectively defined in claim 14, from which this claim directly depends. Clarification is needed.

The following claims have been found objectionable for reasons set forth below:

In claim 4, lines 2 & 4, note that "that" should be rewritten as --where-- at each occurrence for clarity of description.

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In claim 15, last line, note that "the" should be rewritten as --a-- for a proper characterization.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kazuhiko.

Kazuhiko discloses a differential pair arrangement comprising: a multi-layered printed circuit board of dielectric (i.e. insulating) material; a first differential pair of conductors with conductive traces (10a, 10b) disposed within the multi-layered dielectric; a second differential pair with conductive traces (11a, 11b) disposed within the multi-layered dielectric. Note that one of the traces of the first differential pair (e.g. 10a) is at a different level than one of the traces of the second differential pair (e.g. 11a or 11b). The overall arrangement of differential pairs provides reduction in cross talk noise.

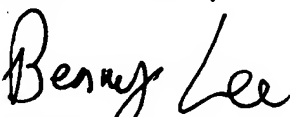
Claims 1, 4, 5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Thornton.

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Thornton (Fig. 1) discloses a differential pair arrangement comprising: a cable (108) which must necessarily be insulating (e.g. dielectric) to preventing short circuiting the differential conductor pairs; a first balance or differential pair of conductors with first & second conductors (110a, 110b) disposed in the insulating cable (108); a second balance or differential pair of conductors with third & fourth conductors (114a, 114b) disposed in the insulating cable (108). Note that the first & fourth conductors (110a, 114b) are disposed in the same level while the second & third conductors (110b, 114a) are disposed in the same level such as to form a rectangular shape pattern which provides electrical isolation between the differential pairs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benny Lee whose telephone number is 571 272 1764.

B. Lee



BENNY T. LEE
PRIMARY EXAMINER
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